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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/235,531	01/22/99	BIEBER	K 476

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EXAMINER	
CADUGAN, E	
ART UNIT	**PAPER NUMBER**
3722	13

DATE MAILED: 04/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/235,531	BIEBER ET AL.	
	Examiner	Art Unit	
	Erica E Cadugan	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *10* .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☒ Other: *See Continuation Sheet* .

Continuation of 20. Other: copy of Ex parte Tanaka, Marushima, and Takahashi (174 USPQ 38).

DETAILED ACTION

Faxing of Responses to Office Actions

1. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 305-3579. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Response to Amendment

2. The amendments to claim 4, line 1 and to the abstract, line 11 could not be entered as the indicated text could not be found at the indicated locations. Additionally, in claim 5, line 3, there are two occurrences of the word "disc", rendering it unclear which of these occurrences applicant wanted to be changed to --shaft--. In accordance with convention, only the first occurrence has been changed.

Specification

3. The abstract of the disclosure is objected to because it contains (per applicant's amendment filed February 7, 2001) legal phrasing such as means or said. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claims 4 and 8 are objected to because of the following informalities: in claim 4, line 1, "hand-guide" should be --hand-guided--; in claim 8, line 10, "an" should be --an--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are several positively recited limitations that lack sufficient antecedent bases in the claims. Examples of these are: "the torque transmission" in claim 1, last line and claim 8, penultimate line; "said arresting guided" in claim 3, line 2; "said intermediate disc" in claim 5, line 3; and "said toothed gear" in claim 14, line 2.

Claim Rejections - 35 USC § 102

7. Claims 1-3, 5, 7-10, 12, and 14, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,984,022 (Harman, Jr. et al.). Harman teaches a drill (column 4, lines 1-2) having a housing 12. Within the housing 12 is a motor 14 which transmits power through a geared drive mechanism 18 to a chuck 16 (column 4, lines 7-11 and Figure 1). The chuck 16 is drivingly connected to an output shaft 64 or "spindle" (column 4, lines 19-22), where a thread is known to be included by

"drivingly connected". As shown in Figure 1, the chuck 16 is loosened or tightened with a key, and thus a moment is imparted to the spindle 64 upon loosening or tightening the chuck 16. The drill has an "arresting device" or automatic shaft lock, which will be further described. Forming a portion of the arresting device is a shaft 60, which is an intermediate shaft. On intermediate shaft 60 is mounted a gear 32 which is coupled to axially-extending drive lugs or claws 42 (column 4, lines 32-35, and Figures 2 and 3). The gear 32 can be considered to be part of a transmission stage, as motion is transmitted from the motor 18 to the spindle 64 via a series of gears which includes gear 32. Adjacent the gear 32 and claws 42 is an anvil or disc 48 which has a plurality of radially-projecting elements (see Figure 2). The disc 48 is press-fit so as to be non-rotatably mounted on intermediate shaft 60 (column 4, lines 39-40). The arresting device serves to lock the intermediate shaft 60 and the output shaft 64 from rotation upon an external torque being applied to the chuck 16 or output shaft 64 (column 6, lines 10-19), and to allow rotation of the intermediate and output shafts when a torque is applied from the motor 14 (column 6, lines 19-31).

8. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

9. Claims 1-5, 7-12, and 14 as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,081,704 (Vassos et al.) in view of U.S. Patent No. 5,788,021 (Tsai). Vassos et al. teaches a drill (column 1, line 10) which has a housing 10, 11 (column 2, lines 22-23). The housing houses a motor 18 (column 2, lines 28-37, and Figure 1) which drives a spindle 20. A chuck 21 for holding a tool threads onto threaded stud 80 of spindle 20 (column 3, lines 66-68, and Figure 3). Thus, the spindle 20 receives a moment during exchanging of the tool holder, and, as viewed in Figure 1, a key is required to loosen or tighten the chuck 21. Such a loosening or tightening of the chuck 21 would also transmit a moment to the spindle. A "stage" of reduction gears is provided (see Figure 1), which gears provide a negative transmission ratio (column 5, lines 3-6). Output shaft 48 (see Figure 3) constitutes an "intermediate shaft". There are many "components" which are connected to the housing (see Figures 1 and 3). Vassos et al. does not teach an arresting device. Tsai teaches an automatic output shaft locking mechanism for an electric tool such as a drill or a striking tool (column 1, lines 7-23). Tsai's device utilizes a retaining ring 50, which constitutes a "disc". The "disc" 50 has a plurality of radial projections 502 (Figure 2), which project outwardly from center hole 501 (see Figure 1). The center hole 501 constitutes a bearing seat which couples disc 50 to shaft 60. Tsai also teaches the use of a "claw coupling" 20 which has a plurality of axially extending claws 203 (see Figure 1). Tsai's inner shaft 10 constitutes the "intermediate shaft", and the outer shaft 60 constitutes an output shaft or spindle

shaft. When a torque is applied to the inner or intermediate shaft 10 (e.g., via the motor), the outer or output shaft 60 rotates (column 3, lines 28-35, and Figures 3 and 4). When a torque is applied to the output shaft 60 (e.g., manually), the disc 50 is locked in position (column 3, lines 35-60 and Figures 5 and 6) such that a chuck or a drill bit can be speedily and conveniently replaced (column 3, lines 60-64). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have added the automatic output shaft locking mechanism taught by Tsai to the drill taught by Vassos et al. (such that the intermediate shaft 48 taught by Vassos acts as the inner shaft 10 taught by Tsai, thus positioning the locking mechanism at an "end side" of a toothed gear of the stage taught by Vassos et al.), for the purpose of allowing drill bits to be speedily and conveniently removed or replaced (Tsai, column 3, lines 60-64).

10. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,081,704 (Vassos et al.) in view of U.S. Patent No. 5,788,021 (Tsai) as applied to claims 1-3, 5, 8-10, and 12 above, and further in view of U.S. Patent No. 3,030,818 (Zagar). Vassos et al. in view of Tsai teaches all aspects of the invention as claimed in claims 6 and 13 as set forth in the above 103 rejection based thereon, but teaches that the shaft 48 has a cylindrical cross section (see Figure 3 of Vassos et al.) rather than a non-cylindrical cross section. Zagar teaches the use of a gear 21, which is a driven disc. The gear 21 is mounted on a polygonal portion of a shaft 27 (Figures 1 and 3). The polygonally-mounted portion acts as a key coupling (column 1, lines 18-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the shape of the intermediate shaft of Vassos et al in view of Tsai such that the portion of the shaft that held the disc was polygonally-shaped for the purpose of providing a built-in key between the disc and the shaft, thus preventing slippage between the disc and the shaft.

Response to Arguments

11. Applicant's arguments filed February 7, 2001 have been fully considered but they are not persuasive.

12. Regarding the previous rejection of claims 1-3, 5, and 7, 8-10, 12, and 14, and the new rejection of claims 8-10, 12, and 14 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,984,022 (Harman, Jr. et al.), as stated above, applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15. Applicant's arguments filed February 7, 2001 state that "A translation of the priority document is enclosed herewith." Examiner could locate no such translation, nor could examiner locate any record of such a translation being filed in, for example, a transmittal letter.

13. Regarding applicant's remarks with respect to the Vassos (U.S. Patent No. 4,081,704) and Tsai (U.S. Patent No. 5,788,021) patents, firstly, applicant has asserted that Vassos does not teach the "new" features of the present invention, "namely an

arresting device arranged between an intermediate shaft connected with the drilling spindle on the one hand, and a machine housing or a component connected with the machine housing on the other hand, which opens during a torque transmission from a drive motor to a tool and automatically closes during the torque transmission from the tool holder in the opposite direction". Applicant is correct in that the Vassos device does not teach an arresting device. However, Vassos alone was not used to reject the claims. The Tsai reference was provided in combination with the Vassos reference to provide the claimed arresting device (see the above 35 U.S.C. 103(a) rejections based on Vassos in view of Tsai, and also on Vassos in view of Tsai and Zagar (U.S. Patent No. 3,030,818).

Applicant has stated that Tsai teaches an arresting device located between "a driven shaft which is subdivided into an inner and an outer shaft. The inner and outer shafts are arranged coaxially with one another." Applicant then states that "in the applicant's invention the arresting device 38 is arranged on an intermediate shaft which extends parallel to the main shaft." It is noted that the rejected claims do not recite a main shaft of any sort, and thus do not recite any sort of relationship between a main shaft and the intermediate shaft. Additionally, applicant has stated that "Furthermore, when the tool operates in a striking manner, the pulses are transmitted through the arresting device. The arresting device is needlessly loaded, and this can lead to an undesirable damping of the pulses." and "Furthermore, the arresting device is uncoupled from strikes of the striking mechanism, and the needless loading of the arresting device and the pulse

damping are avoided.", it is noted that the rejected claims do not recite any type or striking mechanism, nor the relationship of such a striking mechanism to the arresting device. Applicant has also stated that "Because of the subdivision of the shaft into two shafts additional parts are produced, in particular an additional shaft, and the machine is therefore longer." and has stated "With the mounting of the arresting device on the intermediate shaft, ..., "a short length of the machine can be provided.", it is noted that no length of the machine is being claimed in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant has stated that "With the mounting of the arresting device on the intermediate shaft, an available radial space can be used in a favorable manner, a short length of the machine can be provided, and a convenient handling is achieved.". If applicant is implying by this statement that Vassos in view of Tsai does not teach that the arresting device is located on the intermediate shaft, applicant's attention is directed to the above rejection based thereon which states that the Vassos reference teaches an output shaft 48 (see Figure 3), which constitutes an "intermediate shaft". The shaft 48 taught by Vassos and the shaft 10 taught by Tsai are both output shafts, and the arresting device taught by Tsai is "located on" the shaft 10. Also note that the rejected claims do not recite that the arresting device is mounted "on" the intermediate shaft as stated.

Regarding applicant's assertion that "none of these two references" (Vassos or Tsai) "teaches the new features of present invention which are defined in claims 1 and 8", applicant's attention is directed to the above rejections based on Vassos and Tsai. It is noted that the intermediate shaft 48 of the Vassos device is connected to the drilling spindle 20 via the "stage" of reduction gears (Figure 1 and column 5, lines 3-6). It is also noted that if the arresting device taught by Tsai is incorporated into the Vassos device as described in the above rejection, the arresting device is located between the intermediate shaft 48 and the housing 10, 11 (Figure 1 of Vassos).

Applicant also asserts that "In order to arrive at the applicant's invention from the references, the references have to be fundamentally modified, by changing their constructions, and including into them these features which were first proposed by the applicant." Applicant does not further state how these references must be "fundamentally modified" in order to arrive at the claimed invention. As best understood from applicant's statement, it appears that applicant is again stating that the references (Vassos and Tsai) do not teach the "new" features of the present invention as set forth in claims 1 and 8, and that applicant means that the Vassos and Tsai references must therefore have been modified to include these features. However, as already described above, the Vassos and Tsai references *do* teach these "new" features, and thus no "fundamental modification" of these references was made.

Regarding applicant's assertion that "It is well known that in order to support a valid rejection the art must also suggest that it would accomplish applicant's results. This was stated by the Patent Office Board of Appeals, in the case Ex parte Tanaka, Marushima and Takahashi (174 USPQ 38), as follows:

> Claims are not rejected on the ground that it would be obvious to one of ordinary skill in the art to rewire prior art devices in order to accomplish applicants' result, since there is no suggestion in prior art that such a result could be accomplished by so modifying prior art devices."

Within the body of the above-cited case, the board states "Lacking any suggestion in the prior art to make such a modification, we are unable to agree with the examiner that the subject matter recited by these claims would be obvious", i.e., states that the prior art used to reject the claims in the Ex parte Tanaka, Marushima and Takahashi case does not suggest making the modification to the prior art necessary to arrive at the claimed invention (top of page 3 of the case). The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In the instant case, as described in the above rejection based on Vassos and Tsai, Tsai teaches that when a torque is applied to the inner or intermediate shaft 10 (e.g., via the motor), the

outer or output shaft 60 rotates (column 3, lines 28-35, and Figures 3 and 4). When a torque is applied to the output shaft 60 (e.g., manually), the disc 50 is locked in position (column 3, lines 35-60 and Figures 5 and 6) such that a chuck or a drill bit can be speedily and conveniently replaced (column 3, lines 60-64). If applicant is implying by this argument that the Tsai reference could not be successfully combined with the Vassos reference as claimed, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

14. Applicant's arguments with respect to new claims 8-14 have been considered but are moot in view of the new ground(s) of rejection of these new claims.

15. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (703) 308-6395. The examiner can normally be reached on Monday through Thursday from 7:30 a.m. to 5:00 p.m, and every other Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached at (703) 308-2159. The fax number for TC 3700 is (703) 305-3579. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 3700 receptionist whose telephone number is (703) 308-

1148.

eec

April 9, 2001

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